

# Report on the District's Investment Portfolio

South Florida Water Management District
February 13, 2008

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#### **Table of Contents**



- I. Executive Summary
- II. Policies and Procedures Review
- III. Investment Portfolio and Compliance Review

#### I. Executive Summary



Purpose, Scope ar	nd
Approach	

- Assist the South Florida Water Management District (District) in the review and evaluation of the District's investment portfolio.
- Add to the District's current understanding of the market, its portfolios' holdings, current investment operations and structure, and offer recommendations for effectively meeting the District's investment objectives.
- For the District's portfolio our approach to this project includes both a portfolio review and a policy and procedures
  evaluation.
- The review encompassed all investments, excluding bond proceeds. Our process included a review of documents, interviews with key parties, and analysis of the District's portfolios using standard industry products and our own proprietary tools.

### Policies and Procedures Review

- PFM reviewed the Investment Policy Statement, Organization, Investment Processes, Oversight and Reporting by conducting interviews and reviewing of documents and other information provided by the District.
- Based on our review of documentation, analysis of reports and discussions with District's employees, we found a degree
  of transparency with regard to the District's investments. Further, we were impressed with the diligence with which the
  Treasurer and his staff approach the investment function. In our opinion, the District's investments are being managed
  in a thoughtful, prudent manner.
- As in any organization, however, there are opportunities for improvement. We have made specific observations (followed by recommendations) related to:
  - Clarifying certain aspects of the Investment Policy Statement,
  - Formalizing the credit review process,
  - Performing a detail cash flow analysis of the District's funds,
  - Establishing a short-term and a long-term portfolio,
  - Establishing new benchmarks for the short-term and long-term portfolios,
  - Preparing quarterly investment performance reports
  - Improving communication in the oversight of the portfolios.

#### I. Executive Summary



### Investment Program and Portfolio Review

- PFM reviewed the District's portfolio with respect to Credit Quality, Sector Allocation, Liquidity, Investment Policy Compliance and Performance.
- Overall, the District's portfolio is sound. The vast majority of pool assets are of very high quality and pose minimal risk to principal.
   In addition, the majority of the portfolio assets also possess high quality ratings and an acceptable risk profile for a slightly longer-term fund.
- The only exception to this statement is the assets held with State Board of Administration's Local Government Investment Trust Fund (SBA). The District's assets have been split into two different pools an A Fund and B Fund. The A Fund has limited liquidity and withdrawals are based on the direction of the SBA and the B Fund is on lock down until further notice from the SBA. This situation is the result of poor investment management practices by the SBA as well as the national credit crisis.
- As with the Policies and Procedures review, we have made specific observations (followed by recommendations where needed) with respect to:
  - Each type of security held in the pools (credit quality, liquidity, etc.)
  - Cash flow analysis- short and long term portfolios
  - Benchmarks for reporting purposes
  - The allocation of assets to the money market funds versus the long-term fund
  - Monthly reports
  - Investment policy compliance
  - Oversight committee

#### I. Executive Summary



### Conclusions and Recommendations

- Each section of this report provides recommendations on the areas examined and are summarized in the Executive Summary for ease of review.
- · Portfolio is generally high quality.
- Liquidity is more than adequate given historic and expected cash flows.
- Credit exposure is diversified; sector allocations are generally responsive to market changes.
- No portfolio holdings are impaired or in present danger of becoming impaired.
- While not an exhaustive list, some of our key conclusions and recommendations are:
  - Revise the Investment Policy Statement to include the following: (1) establish Treasury Investment Committee, (2) provide monthly and quarterly performance reports, (3) revise benchmarks.
  - Develop a program to obtain the necessary cash flow information from Department heads.
  - Increase the formality of the credit review process for securities, broker-dealers, and counterparties.
  - Foster greater communication of investment reporting information between the Treasurer and the District.
  - Develop and document an investment plan for both the short-term and long-term portfolios.
  - Develop an internal controls operational procedures manual as required by Florida Statutes.

### II. 1. Investment Policy Statement (IPS)



Areas for Examination	Comments
Policy Review	<ul> <li>We reviewed the District's Investment Policy ("Policy") dated April, 2005. We evaluated the Policy based on the following four factors – Compliance, Comprehensiveness, Balance, and Clarity – that we believe contribute to the overall effectiveness of an investment policy.</li> </ul>
Compliance	<ul> <li>While a governing board may impose additional requirements based upon its investment objectives and preferences, an investment policy must, at a minimum, comply with the requirements of the Florida State Statutes ("Government Code").</li> </ul>
Comprehensiveness	<ul> <li>An investment policy should be comprehensive to ensure that the key aspects of the investment program are addressed. The Association of Public Treasurers of the United States and Canada (APT) certification standards are used to help evaluate a policy's comprehensiveness. We have included a matrix below comparing the District's Policy topics with the APT recommended sections</li> </ul>
Balance	<ul> <li>An investment policy should provide a balance between investment restrictions, which help protect the agency's assets, and investment flexibility, which permits the investment staff to adapt to changing market conditions and investment needs.</li> </ul>
Clarity	<ul> <li>An investment policy should express the governing board's investment objectives with sufficient clarity so that both the agency's investment staff and other interested parties (participants or broker/dealers) clearly understand the investment policy's intent.</li> </ul>
Observations	<ul> <li>Overall, the Policy is comprehensive and in compliance with the Government Code sections governing local agency investments. As part of our review, we developed recommendations for the District's consideration. Our suggestions are meant as options for the District to evaluate and do not represent required additions to the Policy. Our recommendations are divided into two types: Government Code Comments and Additional Comments. The comments are listed below by comment type and Policy section. The District should evaluate the suitability of the recommendations based on the context of the District's investment objectives and preferences.</li> </ul>

### II. 1. Investment Policy Statement (IPS)



	Additional IPS Comments
Comparison to Florida State Statute	<ul> <li>In addition to the Government Code comments listed previously, we identified possible revisions that would keep the Policy consistent with the objectives identified above: Comprehensiveness, Balance and Clarity. Our recommendations are described below by Policy section.</li> </ul>
Internal Controls	<ul> <li>IPS Section 110-85. A Internal Controls procedures manual should be prepared by the Treasurer as required by Chapter 218.415, Florida Statutes. This manual would address the keys elements of the daily operational functions of the investment management functions of the District as directed by the District's Treasurer.</li> </ul>
Authorized Investments	<ul> <li>IPS Section 110-86. Authorized Investments and Portfolio Composition. The District's Policy requirements should be modified for additional flexibility and safe guards. On pages 7-8, we have provided a summary matrix that compares the investments permitted by the District's Investment Policy to our recommended changes. We are not recommending any changes to the District's list of permitted investments.</li> </ul>
Credit Minimums	IPS Section 110-86. Maintain documentation as to the current credit ratings for all commercial paper and corporate notes.
Per Issuer Limits	<ul> <li>IPS Section 110-86. Reduce the percentage allocation limit on mortgage-backed securities from 35% of the portfolio to 25% of the portfolio.</li> </ul>

### II. 1. Investment Policy Statement (IPS) – Permitted Investment Matrix



Investment Type	District' Investment Policy Limitations: Holding, Minimum Credit, Maturity			Additional PFM Maturity Limitations	
Local Government Investment Pools	100%	Require AAA-Rated	25%	2a7 rules	
U.S. Treasury obligations	100%	None	None	None	
Federal Agency obligations	100% 50%/issuer Maximum Maturity: 5-Years	None	None	None	
Federal Instrumentalities	80% 35%/issuer Maximum Maturity: 5-Years	None	None	None	
Negotiable Certificates of Deposit	25% 5%/issuer Maximum Maturity: 1-Year	None	None	None	
Commercial Paper	35% 5%of single issue "A1/P1/F1" Maximum Maturity: 270 days	Provide credit reports and current rating support	No asset- backed commercial paper	None	
Corporate Notes	5% 2%of single issue Maximum Maturity: 5 years "AA" or better	Provide credit reports and current rating support	Increase holdings to 10%	Reduce maximum maturity to 3 years	

### II. 1. Investment Policy Statement (IPS) – Permitted Investment Matrix



Investment Type	District' Investment Policy Limitations: Holding, Minimum Credit, Maturity	Additional PFM Credit Quality Requirements	Additional PFM Holding Limits	Additional PFM Maturity Limitations
Bankers' Acceptances	35% total 10%/issuer 180 days A1/P1/F1"	None None		None
State and/or Local Government Taxable and/or Tax-Exempt Debt	20% AA/Aa MIG-1/SP-1 3-Years	None None		None
Local Government Investment Pools	100%	Require AAA-Rated	25%	90-days
Money Market Mutual Funds	50% 5% per fund "AAm" or AAm-G 90-days	Increase to AAA	Increase total limit to 75% Increase per fund to 25%	None
Master Repurchase Agreement	None	None	20% 10% per issuer	1-year
Hedging Instruments	10-Years	Transfer to the Debt Policy	None	None
Reverse Repurchase Agreements	None	Remove	Remove	None

### II. 2. Organization and Oversight



Topic	Observations	Recommendations
Treasury Investment Committee (TIC)	It appears that the District has no formal Treasury Investment Committee to oversee the investment portfolio, performance, reporting and credit issues.	<ul> <li>The use of an internal group to review and monitor the portfolio is a good practice. It helps to ensure that the perspectives of a broad group are considered in the decision making process and that a number of people are aware of changes in the portfolio strategy.</li> <li>Professional asset managers generally have a credit committee to review and approve any changes to the approved issuers list. This provides a broad perspective on industry and issuer specific issues. Since the TIC would also function as a credit committee, it would be appropriate for the TIC to formally document its work regarding the approved issuer list. The recommendation is that the TIC keep a written record of discussions related to credit and changes to the approved issuer list.</li> </ul>

### II. 3. Investment Processes – Trading



Торіс	Observations	Recommendations
Security Swaps	The Treasurer currently uses a "buy and hold" strategy in which securities are purchased and then held to maturity. There is little, if any, trading activity.	<ul> <li>Selling securities prior to maturity is an important tool for managing a portfolio to sector allocation and duration targets.</li> <li>Adopt procedures to evaluate and document value of security swaps so they can become a part of the District's investment management process.</li> </ul>
Approved Broker/Dealer List	<ul> <li>The Treasurer currently maintains an approved list of broker/dealers and direct issuers.</li> <li>No formal review of broker/dealers is conducted.</li> <li>The Investment Policy does not describes the process for reviewing broker/dealer performance and for eliminating firms when they are no longer performing at the necessary level. In practice, it appears that there is no formal review of performance and firms remain on the approved list once they have been approved.</li> </ul>	<ul> <li>The recommendation is that the Treasurer require all firms interested in doing business with the District to go through a formal application, review and approval process. This review should include a financial analysis of the firm, background check of personnel assigned to the District's account and verification of necessary registrations.</li> <li>The Treasurer should also perform a formal annual credit and performance review of all firms on the approved broker/dealer list. Underperforming firms and firms that no longer meet minimum credit standards should be purged.</li> </ul>

### II. 3. Investment Processes – Trading



Topic	Observations	Recommendations
Target Sector Allocation	The Treasurer decides sector allocation with policy limits, market rates, and market perspective.	Discuss at TIC meetings and have TIC approve guidelines for sector allocations on an ongoing basis.
Use of Callable Securities	<ul> <li>The District has regularly held callable Federal Agency securities in the Portfolio.</li> <li>Analysis of callable structures and spreads versus bullet securities is performed by the Treasurer based on his "intuitive" assessment of the security, market conditions and input from the broker.</li> </ul>	<ul> <li>Although the intuition of an experienced Treasurer along with broker input can be useful for assessing the value of callable securities, they are generally not sufficient. Rigorous quantitative analysis is also required. We recommend that the Treasurer expand the use of the option adjusted spread (OAS) analysis as available from Bloomberg to more fully assess callable securities and to help determine the relative value of call options.</li> </ul>
Mortgage-Backed Securities	The Treasurer purchases Mortgage-Backed Securities (MBS) on a regular basis for the portfolio, however, without a solid cash flow analysis it could put the district at a liquidity risk. In addition, non-agency MBS are purchased by the Treasurer and these securities require additional credit review on a regular basis.	<ul> <li>Mortgage-backed securities can offer good returns with limited risk and add to diversification.</li> <li>Limit MBS to agency only and add to strategic allocation discussions by the TIC.</li> <li>Limit MBS to 25% of the portfolio.</li> <li>Develop policies, procedures for evaluation and trading.</li> </ul>

#### **II. 3. Investment Processes**



Topic	Observations	Recommendations
Investment Procedures Manual	The District currently does not have an Investment Procedures manual as required by the investment policy	<ul> <li>The District should develop an Investment Procedures manual as required by the investment policy.</li> <li>The District should be diligent in their Investment Policy Statement compliance monitoring, credit processes, event notification procedures, etc.</li> </ul>
Cash Flows	<ul> <li>The District currently does not have a detailed cash flow analysis of the District funds for the purpose of making investment sector allocation and maturity positions for the portfolio.</li> </ul>	<ul> <li>The Treasurer needs more management support regarding his attempts to obtain cash flow information.</li> <li>Prepare a cash core analysis that includes the development of two portfolios, a short and a long term, so that liquidity is provided for and the District takes advantage of higher longer term returns.</li> </ul>

### II. 4. Reporting



Topic	Observations	Recommendations
Treasurer's Management Report	The Bi-Annual Treasurer's Management Report to the Board provides only summary information about the District's portfolio. The report provides limited information about the investment strategy and why the portfolios were invested the manner in which they were.	<ul> <li>The Treasurer should develop detailed monthly reports that include an investment policy compliance report, trade activity and current investment conditions.</li> <li>The executive summary should include a brief discussion of the investment strategy employed during the period and any planned changes to the strategy.</li> </ul>
Performance	As stated in the District's Investment policy-(a) In order to assist in the evaluation of the portfolio's performance, the District will establish performance benchmarks for its investment portfolio. The use of benchmarks will allow the District to measure its returns against similar units of local government. A suitable benchmark should be chosen given the nature, scope and size of the investment fund and which is consistent with the District's investment objectives and risk tolerance. A benchmark should not be chosen which will induce the investment officer to take on undue risk in order to outperform the benchmark. (b) On a quarterly basis, the yield on the District's portfolio will be compared with (1) the State Board of Administration's Local Government Surplus Funds Trust Fund ("SBA Pool") and (2) the two-year U.S. Treasury note.	<ul> <li>The District should have two portfolios: (1) a short-term portfolio that provides the District with liquidity, (2) a second portfolio representing the District's core assets that can be invested on a longer term basis (1-3 years).</li> <li>Regarding the performance benchmark for the short term portfolio, we recommend that performance be compared to the Standard &amp; Poor's LGIP Index and an appropriate money market fund average.</li> <li>The performance of the long term portfolio should be computed on a total return basis and compared to an index comprised of comparable securities with a similar duration, such as the Merrill Lynch United States 1-3 year Treasury Index. If the District maintains a duration of approximately 1.6 years for the long term portfolio the Merrill Lynch 1-3 Year U.S. Treasury Index would be a good choice for a benchmark. For a short duration, such as 0.9 years, the Merrill Lynch 1-Year U.S. Treasury Index would be a better fit.</li> </ul>

#### III. 1. District's Investment Portfolio



#### Portfolio Composition – All Funds Combined

as of December 31, 2007

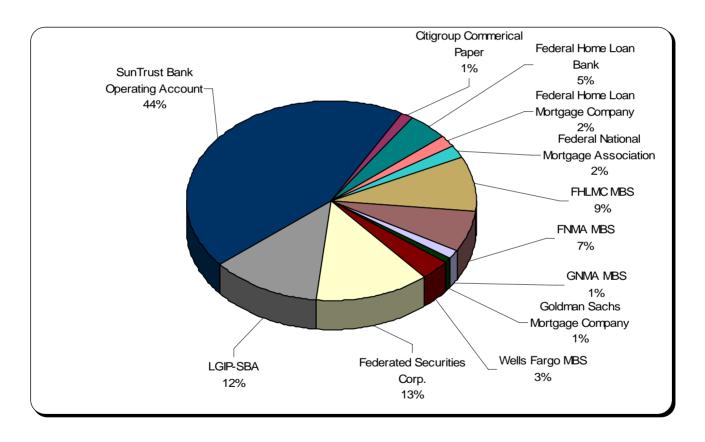
Investments	Par Value	Market Value	Book Value	% of Portfolio	YTM 360	YTM
Money Market Fund	\$ 100,154,951.50	\$ 100,154,951.50	\$ 100,154,951.50	12.93%	4.21%	4.27%
LGIP- SBA	92,810,656.50	92,810,656.50	92,810,656.50	11.98%	4.83%	4.90%
District Operating Account	344,311,374.62	344,311,374.62	344,311,374.62	44.46%	4.21%	4.27%
Commercial Paper	10,000,000.00	9,843,222.22	9,843,222.22	1.27%	4.28%	4.28%
U.S. Federal Agency	65,000,000.00	65,128,066.32	64,997,590.93	8.39%	4.92%	4.99%
Mortgage Backed Securities	162,252,905.38	163,686,786.27	162,386,417.38	20.97%	5.61%	5.69%
	\$ 774,529,888.00	\$ 775,935,057.43	\$ 774,504,213.15	100.00%	4.639%	4.703%

#### III. 1. District's Investment Portfolio



#### **Sector Distribution – All Funds Combined**

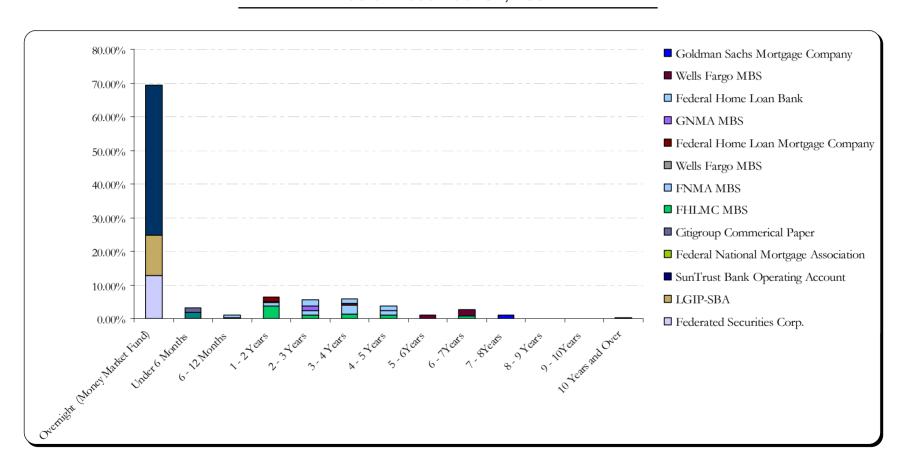
as of December 31, 2007



#### III. 1. District's Investment Portfolio



## Maturity Distribution – All Funds Combined as of December 31, 2007



#### III. 2. Credit Quality

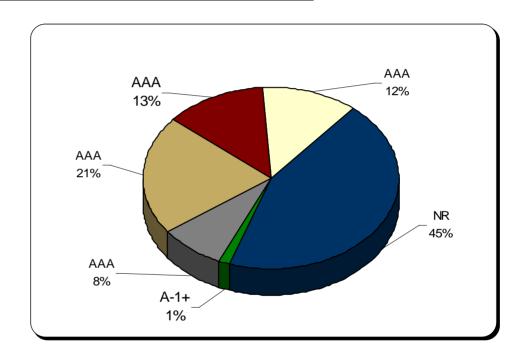


#### **Credit Quality Distribution – All Funds Combined**

as of December 31, 2007

#### **District's Investment Portfolio**

- The District's investment portfolio has 55% of the holdings invested in AAA-rated securities, the highest rating category by Standard & Poor's.
- The remaining 45% of this portfolio is unrated by Standard & Poor's, but is in a bank deposit account regulated by Chapter 280, Florida Statutes.



### III. 6. Investment Policy Compliance



Topic	Observations
Sector Allocation	<ul> <li>All sectors are within the District's Investment Policy limits with exception of the money market funds and the operating account. This is the direct result of the situation with the State Florida Local Government Trust Fund-Investment Fund. The District should add additional money market funds to the portfolio in order to spread the assets and make the recommended investment changes as stated in this report.</li> </ul>
Credit Analysis	The District's investment portfolio is in compliance with the District's Investment Policy per credit ratings. All short-term money market instruments are rated in the top two ratings categories by at least two NSROs.
Maturity Distribution	All maturity distributions fall within the District's Investment Policy Statement.

Security Type	Market Value(\$)	Allocation Percentage	Within Policy Limits
Money Market Fund	100,154,951.50	12.93%	No
LGIP-SBA	92,810,656.50	11.98%	✓
District Operating Account	344,311,374.62	44.46%	No
Commercial Paper	9,843,222.22	1.27%	✓
U.S. Federal Agency	65,128,066.32	8.39%	✓
Mortgage-Backed Securities	163,686,786.27	20.97%	✓